

Prospectus - January 7, 2002

Establishment of a New York State Department of Transportation Wetland Mitigation Bank

Mitigation Bank Review Team:

United States Army Corps of Engineers, Buffalo District
United States Environmental Protection Agency, Region 2
United States Fish and Wildlife Service, Cortland Field Office
New York State Department of Environmental Conservation, Region 8
New York State Department of Transportation, Region 4
Federal Highway Administration, New York Division

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**Prospectus for Establishment of a New York State
Department of Transportation Wetland Mitigation Bank
PIN 4804.87.101**

Executive Summary

The New York State Department of Transportation, Region 4 (DOT) proposes to establish a wetland mitigation bank to compensate for future unavoidable wetland and aquatic resource impacts associated with transportation activities. The bank would be utilized by DOT when on-site compensatory mitigation is not ecologically or economically feasible.

The New York State Department of Environmental Conservation (DEC) currently owns hundreds of acres of land known as the Northern Montezuma Wildlife Management Area in Wayne and Cayuga Counties. Many of these properties were historically functional wetland, but over time private landowners drained the land to create farmland. The DEC has purchased several of these parcels with the intention of restoring the land to its original wetland condition, but the agency lacks the funds needed to fully complete this work. The DOT is prepared to assist the DEC in realizing this goal.

The DOT proposes to fund the restoration of approximately 75 acres of artificially-drained farmland on three land parcels in Wayne County into high quality, self-sustaining, functional wetland by plugging existing drainage ditches, constructing dikes and installing water control structures. These parcels would continue to be owned and managed by the DEC after wetland restoration is complete. The DOT would receive 42 acre "credits" for its restoration efforts on Parcel One and Parcel Two, and these credits would be banked for future wetland mitigation use. The DOT would restore an additional 33 acres of wetland on Parcel Three to compensate the DEC for use of its land (without receiving bankable acre credits). Acre credits would be awarded to the DOT on a phased basis as performance milestones are met.

When unavoidable wetland or aquatic resource impacts are encountered in future transportation projects and on-site mitigation is not feasible, the DOT would utilize the wetland bank to satisfy compensatory mitigation requirements. Unless the regulatory agencies determine a greater credit deduction ratio is warranted for a specific project, two acre credits would be deducted from the wetland mitigation bank for each acre of actual wetland loss, regardless of whether or not compensatory mitigation is specifically required by regulation. The same credit would be used for an activity which requires approval by more than one agency. The use of fractional acre credits would be allowed.

The DEC would monitor and evaluate the three restored wetlands for up to five years after construction is complete using established protocols, with the DOT providing funds for this work.

The DEC would complete any remedial/corrective actions that may be necessary during the five year monitoring period, with the DOT providing funds for this work.

The DOT may be granted approval to establish a second wetland mitigation bank on DEC-owned property within the next five years, if another bank is determined to be needed. The second wetland mitigation bank would be established, funded and administered in a manner similar to the wetland mitigation bank proposed herein.

An interagency Mitigation Bank Review Team (MBRT) would be established to oversee development of a wetland mitigation banking Memorandum of Agreement (MOA). The MOA would detail the establishment, use and operation of the bank and would signify agency agreement with the overall banking project. The MBRT would consist of DOT, DEC, United States Army Corps of Engineers (COE), United States Environmental Protection Agency (EPA), United States Fish and Wildlife Service (FWS) and the Federal Highway Administration (FHWA).

Benefits of the Proposed Wetland Mitigation Bank

Each year, the DOT reconstructs hundreds of miles of highway and numerous bridges, and many of these projects involve work in or around waterbodies and wetlands. The DOT is often tasked with providing on-site mitigation to compensate for unavoidable impacts to these sensitive resources. Due to right-of-way constraints, the typical mitigation effort involves creation of small, "postage stamp" wetlands on upland sites within the highway corridor. While these small created wetlands usually exhibit wetland characteristics, they are very costly on a per acre basis and generally do not produce ecologically superior wetlands.

Establishment of a wetland mitigation bank would offer many ecological and economic benefits for both the DOT and regulatory agencies. These benefits include:

1. An increased efficiency in permit review, issuance and compliance monitoring.
2. A greater economy of scale at all project phases (planning, design, construction and operation).
3. Elimination of the "double permit" process where a permit may be needed for both the transportation project and for the wetland mitigation project.
4. Consolidation of a series of scattered mitigation efforts into a single, integrated ecosystem situated away from the highway environment.
5. A higher degree of ecological success since the bank would involve wetland restoration rather than creation on an upland site.
6. Long-term preservation of the wetland bank since it would be owned and managed by the DEC.
7. Enhancement of the environmentally-sensitive Northern Montezuma wetland complex, which is inhabited by many rare and protected species of flora and fauna.
8. An overall net gain in wetland since compensatory mitigation would be provided for all transportation projects affecting wetland, even when mitigation is not specifically required by regulation.

9. The Bank would help achieve the overall goals of the North American Waterfowl Management Plan and the management plan developed for the Northern Montezuma Wildlife Management Area.

Statutory Authority Allowing Wetland Mitigation Banks

Several laws, regulations and policies have been enacted which authorize off-site compensatory mitigation for unavoidable wetland impacts, including the use of wetland mitigation banks. The proposed wetland mitigation bank would be developed to be consistent with the following rules, regulations, policies and guidelines:

1. Clean Water Act (33 USC 1251 et seq.).
2. Rivers and Harbors Act (33 USC 403).
3. Fish and Wildlife Coordination Act (16 USC 661 et seq.).
4. Regulatory Programs of the Corps of Engineers, Final Rule (33 CFR Parts 320-330).
5. New York State Freshwater Wetlands Act (Title 6 NYCRR, Parts 663, 664 and 665).
6. DEC Freshwater Wetlands Regulation, Guidelines on Compensatory Mitigation.
7. Presidential Executive Order 11990, Protection of Wetlands.
8. Guidelines for Specification of Disposal Sites for Dredged and Fill Material (40 CFR Part 230).
9. Memorandum of Agreement between EPA and Corps concerning the Determination of Mitigation Under the Clean Water Act, Section 404(b)(1) Guidelines (February 6, 1990).
10. Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (Federal Register 58605).
11. FHWA Mitigation of Impacts to Wetlands and Natural Habitats (23 CFR Part 777).
12. Transportation Equity Act for the 21st Century (TEA 21).

Baseline Conditions of the Wetland Mitigation Bank Site

Geographic Location. The Bank would be located on two DEC-owned land parcels located within the Northern Montezuma Wildlife Management Area (hereinafter, Parcel One and Parcel Two). A third land parcel, also located within the management area, would be restored to wetland for the DEC as compensation for use of its land but this parcel would not be part of the Bank (hereinafter, Parcel Three). Refer to Exhibit A for a Bank Location Map.

Parcel One (Tax Map No. 044.114-0000-797.143000) is a 22.2 acre parcel located on the north side of South Butler Road in the Town of Butler, Wayne County. Approximately 15 acres of this parcel would be restored to shallow water emergent wetland.

Parcel Two (Tax Map No. 045.112-0000-115.382000) is a 48.6 acre parcel located southeast of the Route 89 bridge over Crusoe Creek in the Town of Savannah, Wayne County. Approximately 27 acres of this parcel would be restored to shallow water emergent wetland.

Parcel Three (Tax Map No. 044.113-0000-871.896000) is a 42.8 acre parcel located on the south side of South Butler Road in the Town of Savannah, Wayne County. This parcel lies across the road from Parcel One and the parcels are hydrologically linked via a large culvert under the road. Approximately 33 acres of this parcel would be restored to shallow water emergent wetland, but this parcel will not be part of the Bank.

Land Use. The three parcels were historically natural wetland but were artificially-drained to create farmland. These parcels were actively farmed through the fall of 2001 but are currently fallow. The parcels do not presently exhibit wetland characteristics.

Ownership. The three parcels are owned by the DEC. Once restored to wetland, the parcels would continue to be owned by the DEC and managed as part of the Northern Montezuma Wildlife Management Area, thus ensuring the Bank will remain wetland in perpetuity.

Soil Conditions. According to the Wayne County Soil Survey, Carlisle Muck is the predominant soil type on Parcel One and Parcel Two. Carlisle Muck is a hydric soil with a Typic Medisaprists soil taxonomy classification. Martisco Muck is the predominant soil type on Parcel Three. Martisco Muck is a hydric soil with a Histic Humaquepts soil taxonomy classification.

Drainage Basin. The three parcels are located within the Finger Lakes Drainage Basin as defined by the DEC. Refer to Exhibit B for a map of the drainage basins within DOT Region 4.

Hydrology. Impounded surface water would be the primary source of hydrology at the three restored wetlands. Given its topographic location, Parcel Two may receive excess stormwater from Crusoe Creek during seasonal over bank flood events. Parcel Three may receive excess stormwater from nearby Butler Creek during seasonal over bank flood events.

Relationship to Other Wetland Habitats. The three parcels are within the Northern Montezuma Wildlife Management Area, a 6400 acre wetland and upland complex which is owned and managed by the DEC. These parcels would become part of the Montezuma management area, expanding this regionally significant environmental resource.

Wetland Type to be Restored. The three parcels would be restored to a wetland condition by plugging existing drainage ditches, constructing dikes and installing water control structures. It is expected that this work would produce a shallow water emergent wetland on each parcel -- 15 acres on Parcel One, 27 acres on Parcel Two and 33 acres on Parcel Three.

Functions/Ecological Conditions to be Restored. The primary functions of the Bank (and Parcel Three) would be to provide seasonal and year-round habitat for a diverse assemblage of flora and fauna, including resident, transient and migratory birds, amphibians, reptiles and mammals. Secondary functions would be open space, recreation, research and flood desynchronization.

Examples of plant species anticipated to inhabit the Bank include cattails, smartweeds, beggar ticks, rushes, sedges, nettles, dogwoods, viburnum, jewelweed and rice cut grass.

Examples of avian, amphibian, reptile and mammal species anticipated to inhabit the Bank include black duck, mallard, widgeon, teal, killdeer, spotted sandpiper, barn swallow, tree swallow, willow flycatcher, eastern kingbird, American robin, common yellowthroat, yellow warbler, northern oriole, red-winged blackbird, swamp sparrow, song sparrow, American goldfinch, American toad, bullfrog, green frog, spring peeper, snapping turtle, painted turtle, northern water snake, muskrat, mink, beaver, opossum, water shrew and white-tailed deer.

Technical Feasibility. The three parcels are currently non-wetland but each have inherent characteristics that can be easily altered to restore original wetland conditions. The parcels would not require extensive, cost prohibitive construction in order to convert the physical conditions from non-wetland back to wetland.

Credit Value of the Restored Wetlands

One mitigation acre credit would be equivalent to one acre of restored wetland. The Bank would restore 42 acres of wetland habitat on Parcels One and Two and would therefore have 42 mitigation acre credits available for use. The DOT would not receive acre credits for its restoration efforts on Parcel Three. Acre credits would be awarded to the DOT on a phased basis as performance milestones are met. Credits would become available in accordance with the following schedule:

Milestone One. The DOT would receive 14 acre credits after successful achievement of Year One performance standards (i.e. successful grading of the site and introduction of wetland hydrology).

Milestone Two. The DOT would receive another 14 acre credits after successful achievement of Year Two performance standards (i.e. successful establishment of wetland vegetation, plant cover, hydrology, and freedom from invasive species).

Milestone Three. The DOT would receive the final 14 acre credits after successful achievement of Year Five performance standards (i.e. persistence of wetland vegetation, plant cover, hydrology, and freedom from invasive species).

Geographic Service Area of the Wetland Mitigation Bank

Bank Service Area. The Bank would be established to provide compensatory mitigation for impacts to waters of the United States including wetlands within Wayne, Monroe, Ontario and Livingston Counties. Refer to Exhibit C for a map of the geographic service area of the Bank. The MBRT may, on a case-by-case basis, allow the DOT to utilize the Bank to mitigate for wetland impacts occurring outside of the defined service area.

Eligible Projects. Any DOT transportation project within Wayne, Monroe, Ontario and Livingston Counties may be eligible to use the Bank to satisfy compensatory mitigation requirements, but only after appropriate avoidance and minimization efforts have occurred and on-site mitigation has been determined not to be ecologically or economically feasible.

Use of Credits and Debit Processes

In the past, regulatory agencies have typically required the DOT to provide on-site compensatory mitigation on an acre for acre basis, resulting in no net loss of wetland. However, this approach has resulted in no net gain of wetland either. Unless the regulatory agencies determine a greater credit deduction ratio is warranted for a specific project, the DOT proposes to deduct two acre credits from the wetland mitigation bank for each acre of actual wetland loss, regardless of whether or not compensatory mitigation is specifically required by regulation. The same acre credit would be used for an activity which requires approval by more than one agency. The use of fractional acre credits would be allowed.

The debit process for transportation projects requiring individual permits, programmatic permits requiring submission of an application, or nationwide permits requiring pre-construction notification would be as follows:

1. The DOT would submit a permit application to the appropriate regulatory agencies documenting its wetland avoidance and minimization efforts and its compensatory mitigation plan -- on-site mitigation, use of banked credits, or a combination of credits and on-site mitigation.
2. If credits are to be utilized, regulatory approval of the permit application would signify permission to use the Bank for compensatory mitigation. The appropriate number of acre credits would then be deducted from the Bank.
3. If the use of Bank credits is deemed unacceptable, the regulatory agencies shall provide the DOT with a letter denying the use of credits within 30 calendar days after completion of the public notification process, except for good cause. The letter of denial shall detail why the use of Bank credits was deemed unacceptable.

The debit process for transportation projects requiring programmatic permits not requiring submission of an application, or nationwide permits not requiring submission of a pre-construction notification would be as follows:

1. The DOT would internally document its wetland avoidance and minimization efforts and its compensatory mitigation plan -- on-site mitigation, use of banked credits, or a combination of credits and on-site mitigation.
2. If credits are to be utilized, the DOT would issue a *Wetland Mitigation Bank Debit Certificate* to the appropriate regulatory agencies certifying use of the Bank and compliance with all compensatory mitigation requirements. No approval from or action by the regulatory agencies would be required. Refer to Exhibit D for a sample *Wetland Mitigation Bank Debit Certificate*.
3. The appropriate number of acre credits would then be deducted from the Bank.

Establishment of a Mitigation Bank Review Team

The DOT proposes establishment of an interagency Mitigation Bank Review Team (MBRT) to oversee development of a wetland mitigation banking Memorandum of Agreement (MOA). The MOA would detail the establishment, use and operation of the bank, and would signify agency agreement with the overall banking project.

The MBRT would be comprised of agencies with direct involvement or regulatory control over the banking project, specifically:

1. United States Army Corps of Engineers, Buffalo District (Corps).
2. United States Environmental Protection Agency, Region 2 (EPA).
3. United States Fish and Wildlife Service, Cortland Field Office (FWS).
4. New York State Department of Environmental Conservation, Region 8 (DEC).
5. New York State Department of Transportation, Region 4 (DOT).
6. Federal Highway Administration, New York Division (FHWA).

The agencies represented on the MBRT would provide appropriate oversight in carrying out the provisions of the Bank. The MBRT would be chaired by the COE, who would make final decisions regarding the terms and conditions of the Prospectus and Memorandum of Agreement when consensus cannot otherwise be reached.

The agencies represented on the MBRT would review and provide comments on all project plans, monitoring reports, contingency plans, and necessary permits for the Bank within 30 calendar days from the date of complete submittal, except for good cause.

The agencies represented on the MBRT may conduct compliance inspections, as necessary, to verify credits available in the Bank or to identify corrective measures that may be necessary. Compliance inspections may be performed during the monitoring period or until all credits have been used, whichever is later.

Memorandum of Agreement Between the Mitigation Bank Review Team

The DOT would be responsible for preparing a MOA in consultation with the MBRT. The MOA would include the following:

1. Purpose, goals, and objectives of the wetland mitigation bank.
2. Roles and responsibilities of the MBRT.
3. Baseline conditions of the bank site.
4. Credit value of the bank.
5. Ownership and management of the bank.
6. Geographic service area of the bank.
7. Administration of bank credits, including debit ratios, debit procedures, credit availability, timing of credit withdrawal, and record keeping.
8. Design and Construction elements of the bank.
9. Post-construction monitoring of the bank.
10. Remedial action and responsibilities.
11. Long-term maintenance and management responsibilities.

Design of the Wetland Mitigation Bank

The DEC, using funds provided by the DOT, would design the Bank and prepare all required engineering plans for approval by the DOT and the MBRT. The DEC may seek assistance from Ducks Unlimited or other agencies in designing the Bank and preparing these plans. A wetland restoration plan has already been completed for Parcel Two by Ducks Unlimited. Refer to Exhibit E for the Wetland Mitigation Bank Design Plans.

Construction of the Wetland Mitigation Bank

The DEC currently has a long-term contract with a local contractor to perform specialized wetland construction activities within the Northern Montezuma Wildlife Management Area. The wetland restoration activities to be completed on the three parcels would be performed by this contractor under the existing DEC contract, with the DOT funding the work. The DEC would field inspect construction activities to assure compliance with the design plans and the MOA. The DOT would periodically be on-site to assist in monitoring construction activities, and would complete a detailed inspection of all construction work before acceptance.

Construction activities would generally include plugging existing drainage ditches, reshaping existing dikes, constructing new dikes, and installing water control structures. Large-scale earth moving and planting of wetland vegetation would not be necessary.

Post-Construction Monitoring of the Wetland Mitigation Bank

Monitoring Protocol/Performance Criteria. The duration of monitoring would be for five consecutive years. The DEC, using funds provided by the DOT, would monitor the Bank during the first four growing seasons following construction using its Wetland Restoration Monitoring Protocol for Northern Montezuma Wetlands - Routine Assessment Methodology (Exhibit G). Monitoring would include an inventory of invasive exotic plants such as purple loosestrife and phragmites. The findings would be documented in brief annual monitoring reports that would be provided to each agency represented on the MBRT.

The DEC, using funds provided by the DOT, would monitor the Bank during the fifth growing season using its Wetland Restoration Monitoring Protocol for Northern Montezuma Wetlands - Comprehensive Assessment Methodology (Exhibit G). The findings would be documented in a more detailed monitoring report that would be provided to each agency represented on the MBRT.

If after reviewing the fifth year report the MBRT determines the Bank is functioning as intended, no further monitoring of the Bank would be required to be performed by the DEC or the DOT. The MBRT may suspend the need for monitoring at anytime during the five year monitoring period if it is evident that the Bank is functioning as intended and is being properly managed and maintained by the DEC.

Monitoring Reports. The DEC would prepare and submit to each agency represented on the MBRT annual monitoring reports describing the conditions of the Bank and relating those conditions to the success criteria. The reports would be prepared and submitted by December 1 of each monitoring year and would contain the following information:

1. Narrative summarizing the condition of the Bank.
2. Overview of assessment methodology.
3. Species richness and relative abundance of avian, amphibian, reptile, mammal and plant species.
4. Habitat characteristics including area of water cover, plant composition, and vegetative community types.
5. Changes in habitat characteristics.
6. Changes in marsh bird and amphibian species composition and abundance.
7. Inventory of nuisance exotic plants (purple loosestrife and phragmites) and map showing locations.
8. Determination as to the achievement of performance standards.
9. Description of recommended remedial/corrective actions to be performed.
10. Site maps, photographs and field data forms.

Remedial Actions within the Wetland Mitigation Bank

The DEC, using funds provided by the DOT, would perform all remedial actions that may be necessary during the monitoring period to ensure Bank success. Remedial actions that may be necessary include invasive species control, water level adjustments, repair of dikes or erosion control.

The DEC, as part of its long-term management of the Northern Montezuma complex, would be responsible for performing and wholly funding any remedial actions that may be required in the Bank after the monitoring period expires.

Long Term Management of the Wetland Mitigation Bank

The DEC currently owns and will continue to own the Bank parcels. The DEC would manage the Bank as part of the Northern Montezuma Wildlife Management Area following completion of wetland construction activities. The Bank would be designed to be self-sustaining and should require little long-term maintenance or extensive management activities.

Administration of the Wetland Mitigation Bank

The administration, tracking and reporting of wetland credit usage would be the responsibility of the DOT, and monitored by the involved regulatory agencies. The DOT would submit a *Wetland Mitigation Bank Annual Credit Usage Statement* to the members of the MBRT by December 31 of each calendar year the Bank is active. This statement would include an itemized listing of the wetland bank credits used during the calendar year. Refer to Exhibit F for a sample *Wetland Mitigation Bank Annual Credit Usage Statement*.

Permits and Authorizations

The DOT would obtain all appropriate environmental documentation, permits, certifications, or other authorizations needed to establish and maintain the Bank. This Prospectus and the Memorandum of Agreement would not fulfill or substitute for such authorizations.

Establishment of a Second Wetland Mitigation Bank

The DOT may be granted approval to establish a second wetland mitigation bank on DEC-owned property within the next five years, if another bank is determined to be needed. The second wetland mitigation bank would be established, funded and administered in a manner similar to the wetland mitigation bank proposed herein. A separate Prospectus and Memorandum of Agreement would be

executed if and when a second Bank is established.

Financial Assurances

The DOT has obligated \$195,000 in State-dedicated highway funds in its capital program for establishment of a Bank. The DOT would transfer these funds via journal voucher to the DEC, who would be responsible for designing, constructing and monitoring the Bank (and Parcel Three) and for performing all necessary remedial actions. Funds would be provided to the DEC on a per-acre basis.

The figures listed below represent the maximum financial contribution to be provided by the DOT for establishment of the Bank. In the event that the design, construction, monitoring and remedial costs exceed this contribution, the DEC would be wholly responsible for the additional costs.

TOTAL DOT FUNDS TO BE TRANSFERRED TO DEC (Dollar figures are based on the restoration of 75 acres of wetland on three land parcels, with the DOT receiving 42 acre credits)		
DEC ACTIVITY	DOT PER ACRE CONTRIBUTION	TOTAL DOT CONTRIBUTION
Wetland Restoration - Design Activities	\$200	\$15,000
Wetland Restoration - Construction Activities	\$1800	\$135,000
Wetland Monitoring	\$400	\$30,000
Wetland Remedial Actions	\$200	\$15,000
TOTAL DOT FUNDS TO BE TRANSFERRED TO DEC		\$195,000
The cost of restoring 75 acres of prior-converted wetland is \$2600 per acre. (\$195,000 / 75 = \$2600).		
With the DOT receiving 42 acre credits, banked credits will have a value of \$4643 per acre. (\$195,000 / 42 = \$4643).		

Uses of the Bank

The Bank (and Parcel Three) would primarily be used for conservation, limited passive recreation and research - all of which are consistent with the management plan developed for the Northern Montezuma Wildlife Management Area. Furthermore, the DOT and DEC would not grant easements, rights-of-way, or any other property interest in or to the Bank without written consent of

the MBRT, through the Chair.

Force Majeure

The DOT and DEC would not be held responsible for failure of the Bank that is attributed to natural catastrophes (such as flood, drought, disease, regional pest infestations) that the MBRT determines is beyond the control of the DOT and DEC to prevent or mitigate.

Exhibits

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| Exhibit A | Bank Location Map. |
| Exhibit B | Drainage Basin Map. |
| Exhibit C | Bank Geographic Service Area Map. |
| Exhibit D | Wetland Mitigation Bank Debit Certificate - Sample. |
| Exhibit E | Wetland Mitigation Bank Conceptual Design Plans. |
| Exhibit F | Wetland Mitigation Bank Annual Credit Usage Statement - Sample. |
| Exhibit G | DEC Wetland Restoration Monitoring Protocol for Northern Montezuma Wetlands. |